

Fig. 5. A spermatheca from segment viii., $\times 7$. Letters as before.

Fig. 6. Prostate, $\times 7$.

Perichæta sexta, sp. n.

Fig. 7. Male pores. Unfortunately the lithographer has indicated *ten* chætæ, instead of eight, between the male pores.

Fig. 8. Prostate, $\times 7$. *a*, penial duct; *b*, bulbus.

Fig. 9. Spermatheca, $\times 7$. Letters as before.

Perichæta cuducichæta, sp. n.

Fig. 10. Segments ix., x., xi., xii., $\times 7$, to exhibit annulation of segments and the absence of chætæ on segment x.

Fig. 11. Prostate, $\times 7$.

Fig. 12. Spermatheca, $\times 7$.

VIII.—*Descriptions of Five new African Shrews.*

By OLDFIELD THOMAS.

IN examining a shrew obtained by Dr. Donaldson Smith's expedition in Somaliland an attempt has been made to determine the other African shrews in the British Museum collection, with the result that the following species prove to need description:—

Crocidura (*Croc.**) *Smithii*, sp. n.

Coloration that characteristic of the *C. albicauda* and *Fischeri* group, but size smaller than in any known species of it. Face, crown, and back pale slaty grey; lips, cheeks, chin, chest, sides, and belly white, as are also the whole of the limbs. Ears short, almost naked, their few fine hairs brown. Lateral glands distinct (in male), the hairs above and below them stained rufous in the type. Tail barely half the length of the head and body, thick, tapering, rather thinly haired, pure white throughout.

* In using the terms "*Crocidura*" and "*Pachyura*," I do so only because they serve as convenient formulæ by which the number of the teeth may be most readily shown. In agreement with Dobson, Lataste, Trouessart, and others, I have little doubt that they do not represent natural genetic groups, and that, for example, the large *Pachyuræ* are more closely allied to the large *Crociduræ* than they are to the pygmy species having the same dental formula. In fact, some four or five cases are known in which a specimen is a *Pachyura* on one side of the mouth and a *Crocidura* on the other, although it must be admitted that, on the whole, there is a great constancy as to the presence or absence of the fourth unicuspid within any given species, and that we ought not to allow ourselves to be too much influenced by such exceptional cases as these. Pending further knowledge on this most difficult subject, I prefer to use the large genus *Crocidura*, taking advantage of the subgeneric terms simply to indicate the dental formulæ of the species described.

Anterior incisor with a very long vertical cusp. Third upper unicuspid smaller than second, pressed close against the antero-internal side of the large premolar, behind whose antero-external cusp it is half hidden.

Dimensions of the type (an adult male, in spirit):—

Head and body 64 millim.; tail 31; hind foot 11; ear 7·5; forearm and hand 15·6.

Skull: basal length 18; extreme length (including incisors) 20·6; greatest breadth 9; palate length 8·6, breadth outside molars 6·2; tip of $\frac{i.1}{1}$ to tip of $\frac{p.4}{4}$ 4·9.

Hab. Webi Shebeli, Somaliland.

Type collected and presented by Dr. E. Donaldson Smith.

This well-marked species is readily distinguishable by its small size from any known species presenting its coloration, which seems to be characteristic of several East-African shrews. In its general proportions it has a curious youthful appearance, although, as shown by its skull and feet, the specimen is fully adult.

I have named this shrew in honour of its donor, Dr. Donaldson Smith, whose scientific explorations have already done so much towards increasing our knowledge of the fauna and flora of Somaliland.

Crocidura (Cr.) somalica, sp. n.

Size small, form slender. General colour above slaty grey, more or less variegated with brown. Belly clear grey; chin white. Ears whitish, very finely haired. Hands and feet white. Tail fairly long, slender, not markedly incrassated, but yet thicker at its base, whence it evenly tapers to its tip; pale brown above, white below, the bristles white. Lateral gland not visible in the type (female), but present in a second specimen (a male), as to whose specific identity with the type there can be little or no doubt.

First upper incisor small and delicate, conspicuously weaker than in *C. Smithii*; second and third upper unicuspids approximately equal both vertically and horizontally.

Dimensions of the type (an adult female, in spirit):—

Head and body (rather shrunk) 53 millim.; tail 39; hind foot 11·2; forearm and hand 15·6.

Skull: basal length 16·7; extreme length (including incisors) 19·5; greatest breadth 8·4; palate length 8·2, breadth outside molars 5·9; tip of $\frac{i.1}{1}$ to tip of $\frac{p.4}{4}$ 4·2.

Hab. Webi Shebeli, Somaliland.

Type: B.M. 93.6.30.7; presented and collected by Col. A. Paget.

Besides the type, which was obtained by Col. Paget in 1892, the Museum possesses a second specimen collected in the same region by the lamented Prince Ruspoli, who sent it with others to the Museo Civico, Genoa, by whose authorities it was later presented to the British Museum.

This species superficially resembles the common European *C. russula*, with which it fairly agrees in size and proportions, but from which it may be readily distinguished by its paler colour and evenly tapering tail.

Crocidura (Cr.) silacea, sp. n.

Size and proportions of *C. pilosa*, Dobs. Fur close and velvety. Colour dark slaty grey above, rather paler beneath. Ears not specially hairy or tufted. Fore claws short and strongly curved; upper surface of hands and feet brownish grey. Tail rather long, slender, not incrassated at base, thinly haired, brown above, slightly paler below. Lateral gland not present, at least in the female.

Skull and dentition not appreciably different from those of *C. pilosa*.

Dimensions of the type (an adult female, in spirit):—

Head and body 65 millim.; tail 44; hind foot 12; forearm and hand 16·5; ear from notch 9.

Skull (of a second specimen from the same locality): basal length 16·6; extreme length (including incisors) 19·5; greatest breadth 8·8; palate length 7·7, breadth 5·7; tip of $\frac{i.1}{i.1}$ to tip of $\frac{p.4}{p.4}$ 4·1.

Hab. Figtree Creek, De Kaap, Transvaal. Coll. Dr. Percy Rendall.

Type: B.M. 93.11.26.29.

This species seems to be most nearly allied to *C. pilosa*, to which I assign a specimen from Pretoria, presented to the Museum by Mr. W. L. Distant in 1890. It differs, however, by its grey instead of brown colour, its paler feet, less hairy ears and tail, and by its shorter and more strongly curved anterior claws.

Crocidura (Cr.) Crossei, sp. n.

Size small, less than in any described West-African species except *C. bicolor*, Boc. Colour of body uniform slaty grey above and below. Ears very thinly haired, grey. Chin white. Upper surface of metapodials grey, of digits white. Tail rather long as compared with most species, thin, not specially incrassated at base, but nevertheless evenly tapering to its tip; its colour grey-brown above, rather paler below;

longer bristles fairly numerous, evenly scattered throughout except at the extreme tip. Lateral gland well developed.

Anterior upper incisors small and delicate. Second and third unicuspid subequal, their tips about level with the basal cusp of \underline{P}^4 .

Dimensions of the type (an adult male, in spirit) :—

Head and body 60 millim.; tail 51; hind foot 12; forearm and hand 16·7.

Skull: basal length 17; greatest length (including incisors) 19·1; greatest breadth 8·2; interorbital breadth 3·7; palate length 8·2, breadth 5·4; tip of \underline{i}^1 to tip of \underline{P}^4 4·2; \underline{i}^1 , horizontal length 1·6, height 2·1.

Hab. Asaba, 150 miles up the River Niger.

Type: B.M. 95.5.3.4. Presented and collected by Dr. W. H. Crosse.

With this species, which seems to be smaller than any of the ordinary grey-coloured shrews as yet described from West Africa, Dr. Crosse obtained specimens apparently referable to *C. Manni*, Pet., and *C. soricoides*, Murray, of the latter of which the Museum possesses the type, and of the former two topotypes.

Crocidura (Pachyura) varilla, sp. n.

Size very small, but not so minute as in the *C. madagascariensis* group. Fur soft, not crisp, fairly long, the hairs of the back 4–5 millim. long. General colour finely variegated grey, almost exactly similar to that of *Myosorex varius*; the hairs slaty grey for two thirds their length, the subterminal sixth whitish and the tips brown. Under surface paler grey, the tips of the hairs white. Ears of normal development, projecting but little beyond the fur; almost naked. Upper surface of hands and feet white. Tail about equal in length to the body without the head; cylindrical, not thickened at base, well-haired, the longer bristles particularly numerous, pale brown above, white below, the bristles all white. Lateral gland small but distinct (male).

Third upper unicuspid slightly higher vertically than the second. Fourth of fair size, clearly visible externally.

Dimensions of the type (an adult male, in spirit) :—

Head and body 52 millim.; tail 32; hind foot 9·1; forearm and hand 14·2.

Skull: extreme length (c.) 17·4; tip of \underline{i}^1 to tip of \underline{P}^4 3·7.

Hab. East London, British Caffraria. Presented by Lieut. H. Trevelyan.

Type: B.M. 78.1.22.1.

The only question that arises in describing this very pretty little shrew is its relationship to *C. gracilis*, Blainv., said to come from the Cape. That animal, however, is evidently, from the accounts given of it by de Blainville, Coquerel, and Trouessart, a member of the group of true pygmy shrews, to which *C. madagascariensis* belongs, all of which are decidedly smaller than *C. varilla*, and have short, crisp, and uniformly coloured fur. In addition, *C. gracilis* is said to be chestnut-brown above ("brun-marron"), and to have an incrassated tail, in both of which respects it differs materially from the animal now before us.

Besides the type, the Museum possesses three other specimens which I refer with some doubt to this species, the doubt being due to their bad condition. One of them was sent by Verreaux from the Cape, and the other two came from the collection of Sir Andrew Smith, who no doubt supposed they belonged to his *C. capensoides*, a species which, as the type shows, is not a *Pachyura*, is somewhat larger, and differs in other details from *C. varilla*.

IX.—*On small Mammals from Nicaragua and Bogota.*

By OLDFIELD THOMAS.

THE Museum has obtained from Dr. E. Rothschuh a few small mammals collected by him when at Managua, Nicaragua; and one of them proving to need description as new, a few notes on the others may be given at the same time.

1. *Lichonycteris obscurus*, gen. et sp. n.

One specimen.

LICHONYCTERIS*, gen. nov.

Dentition.—I. $\frac{2}{0}$, C. $\frac{1}{1}$, P. $\frac{2}{3}$, M. $\frac{2}{2} \times 2 = 26$.

Deciduous lower incisors and an anterior deciduous upper premolar may be present in early life.

Upper incisors small, not touching each other, standing equidistant in an even curve between the canines. Canines and cheek-teeth above and below very slender and delicate, almost as much so as in *Chæronycteris*; the molars narrow, with scarcely a trace of W-shaped cusps.

Skull light and papery, the elevation of the crown above

* λείχω, I lick. The bats of the present group feed by licking out the contents of berries &c. with their long fringed tongues.